



STERLING-M CONTROLLER

Designed with the greenhouse grower in mind, the Sterling-M is a highly flexible misting controller in addition to being an ideal controller for virtually all other irrigation applications. The supplemental programming instructions included herewith are for misting applications only. For other watering applications, refer to the booklet entitled "Owners Manual for Sterling Series Controllers."

Programming Features Include:

- Individual station timing adjustable from 1 second to 24 minutes in 1 second increments.
- "OFF" time between misting cycles adjustable from 1 minute to 255 minutes in 1 minute increments.
- Cycling can be scheduled to begin and end automatically (built-in 24-hour clock).
- Cycling can be started and stopped manually as well as automatically.
- Period of time each day that cycling will occur is adjustable from 1 minute to 23 hours 59 minutes.
- Six independent programs that can run concurrently.
- Programmable pause of 1 second to 59 seconds between stations to allow full valve closure before advancement to the next station.
- No limit on the number of programs to which a station can be assigned.

ERASING CURRENT PROGRAMS

All settings within each program (except for current day and current time) can be erased with a single entry. Programs can be erased individually or all at once:

To Erase An Individual Program:

- a. Turn the dial to desired program.
- b. Press the following keys in sequence.



Display will show a flashing "PE" to indicate that the program has been erased.

To Erase All Programs At Once:

- a. Turn dial to Program Erase/Calendar position.
- b. Press the following keys in sequence.



Display will show a flashing “PE” to indicate that all programs have been erased.

PROGRAMMING INSTRUCTIONS FOR MISTING APPLICATIONS

If you make a mistake while programming, the controller displays an error message. Press the **Clear** key, then repeat correctly the last programming step.

Follow the instructions below to set your program(s); or to make changes, deletions, or additions to the current program(s). Any program setting can be changed without affecting the rest of the program. To erase existing program(s), follow instructions on previous page.

To begin programming, turn the dial to a program (e.g., Program 1).

1. **Set Current Time:** Using the numbered keys, key in the current time. If it is p.m., the next step is to press the **PM%** key (the p.m. indicator will show up on the upper left side on the display window). Next, press the **Time** key.

EXAMPLE A: Time is 11:38 a.m., press:



EXAMPLE B: Time is 4:35 P.m., press:



NOTE: Midnight is 12:00 a.m., Noon is 12:00 p.m.

2. **Set Today:** Key in the number corresponding to the current day of the week, then press **Today** key.

EXAMPLE: Today is Tuesday, press:



Time and Today functions need only be entered once and will automatically apply to all six programs. The remaining functions, covered in steps 3, thru 9 below, apply only to the program indicated by the program dial and must be entered in each program that is intended to operate automatically.

3. **Set Water Days:** Key in a day of the week that watering is to occur and then press the **Water Day** key. Repeat for all selected watering days.

EXAMPLE: Selected watering days are *Sunday, Monday, and Wednesday.*

To program, press:



To delete a programmed Water Day, key in that day and press **Skip Day** key. When programming a Water Day, display will show “On” and the number corresponding to the appropriate day of the week (Sun. = 1, Mon. = 2, Tues. = 3, etc.). To indicate a Skip Day, display will show “Off” and the day number.

Note: To schedule watering to occur on other than specific days of the week, such as every other day, every 3rd day, every 4th day, etc., refer to instructions on page 21 on the Owner’s Manual.

4. Activate “Seconds” Mode: Options 1 thru 6 are used to change the time base in programs 1 thru 6 from minutes/ hours to seconds/minutes. (Option numbers correspond to program numbers.) Each program is set separately. Once set, the station run times within that program are adjustable from 1 second to 24 minutes in 1 second increments.

To activate the seconds mode option in a program:

- a. Turn dial to Options position.
- b. Key in the program number (1-6).
- c. Press **Manual On/Off** key. The display will indicate “On” followed by the program number.
- d. Return dial to previous position to continue programming.

5. Set Station Water Time: To set the watering duration of each station to be included in program:

- a. Key in station number.
- b. Press **Stn. Water Time** key.
- c. Key in watering duration.
- d. Press **Enter** key.
- e. Repeat for all stations to be included in this program.

EXAMPLE A: Station 4 to water for 24 seconds, press:



EXAMPLE B: Station 12 to water for 1 minute 40 seconds, press:



To change the watering duration of a station, follow steps a thru d above entering the new durations at step c.

To delete a programmed station, enter “0” at step c.

Controller will skip unprogrammed stations.

6. **Set Start-of-Cycling Time:** To set the time that watering will start (beginning of loop):

- a. Press **9** key.
- b. Press **Cycle Start** key.
- c. Key in the time of day that watering is to start. If during p.m., the next step is to press the **PM%** key.
- d. Press **Enter** key.

EXAMPLE: If cycling is to begin at 9:00 a.m., press:



7. **Set End-of-Cycling Time:** To program the time of day that cycling will stop (end of loop):

- a. Press **0** key.
- b. Press **Cycle Start** key.
- c. Key in time of day watering is to end. If during p.m., the next step is to press the **PM%** key.
- d. Press **Enter** key.

EXAMPLE: If cycling is to end at 5:00 p.m., press the following keys:



8. **Set Delay Between Cycles:** During the cycling period, watering cycles will repeat immediately unless a delay is scheduled. The "OFF" time between cycles can range from 1 minute to 4 hours and 15 minutes (regardless of whether the program is running in minutes mode or seconds mode). To schedule a delay:

- a. Key in number **90**.
- b. Press **Sta. Water Time** key.
- c. Key in delay time (1 minute to 4 hours and 15 minutes).
- d. Press **Enter** key.

EXAMPLE A: To schedule a 20 minute delay between cycles, press the following keys:



EXAMPLE B: To schedule a delay of 2 hours and 30 minutes between cycles, press the following keys:



Programmable Pause: This feature allows for a delay of 1 second to 59 seconds between the time each station shuts off and next one turns on as stations are sequencing through the cycle. The pause will be deducted from the previous station's water time. If a pause is desired, follow step #9.

9. Set Pause Between Stations:

- a. Press **0** key.
- b. Press **Stn Water Time** key.
- c. Key in delay time (1 to 59).
- d. Press **Enter**.

EXAMPLE: To program a pause of 6 seconds, press:



To delete pause, follow steps a through d above, entering “0” at step c.

After programming has been completed, watering will begin automatically at the next scheduled start time (beginning of loop). To activate the loop cycle prior to then, follow the instructions below.

MANUALLY STARTING LOOP CYCLE

To activate a loop cycle at other than its scheduled start time (beginning of loop), do the following:

- a. Turn the dial to desired program.
- b. Key in the first station intended to turn on.
- c. Press **Manual On/Off** key. (Display will alternatively flash station number and remaining water time.)
- d. Return dial to Auto position.

Note: If loop cycle is manually started, it will continue until its programmed end time (end of loop) unless it is manually stopped before then.

Manually Stopping Loop Cycle: With dial at program in operation, press **Manual On/Off** key.

PROGRAM REVIEW

To recall any of the following functions without affecting the Program, turn Program Knob to the program to be reviewed.

TIME

Press **Time** key and display will show current time.

TODAY

Press **Today** key. The number shown will correspond to current day of week (Sun = 1, Mon = 2, Tues = 3, etc.)

WATER DAYS

Press **Water Day** key and display will scroll the Water Days.

STATION WATER TIME

- a. **Individual Station Water Time:** Key in station number, then press **Stn. Water Time** key.
- b. **Combined Water Time Of All Stations Included In Program:** Press **Clear** key, then press **Stn. Water Time** key.
- c. **Scrolling Of Water Times Of Stations Included In Program:** Press **Clear** key, then press **Stn. Water Time** key two times. The display will alternately flash station number and watering time for each programmed station.

**START OF WATER
CYCLING**

Press 9, then press **Cycle Start** key.

END OF CYCLING

Press 0, then press **Cycle Start** key.

24950 AVENUE KEARNY, VALENCIA, CALIFORNIA 91355-2142

PHONE (661) 257-3533 ◆ FAX (661) 257-9472

www.superiorcontrolsco.com